

MATSEYKO, Yuriy Mikhaylovich [Matseiko, IU.M.], kand.istor.nauk; DZHEDZHULYA,  
A.O., kand.istor.nauk, red.; GANUSETS, O.I. [Hanusets', O.I.], red.

[Present stage of economic cooperation among socialist countries]  
Ekonomichna spivdruzhnist' sotsialistichnykh krain na suchasnomu  
etapi. Kyiv, 1957. 43 p. (Tovarystvo dlia poshyrennia politych-  
nykh i naukovykh znan' Ukraini'koi RSR. Ser.7, no.9) (MIRA 12:3)  
(Economics)

AKHMYRTSEV, B.P.; DZHEGERIS, B.T.

Evolution of Soloth soils. Pochvovedenie no.6:71-78 Je '59.  
(MIRA 12:9)

1. Voronezhskiy gosudarstvennyy universitet.  
(Soloth soils)

GOLOVINA, A.; DZHEKHUTANOVA, G.

Business decisions. Mast. ugl. 7 no. 5:10 My '58. (MIRA 11:7)  
(Mine management)

DZHEKBATYROV, N.

Future development of public self-government in the activities  
of local soviets. Vest. AN Kazakh. SSR 17 no.10:32-40 0 '61.  
(MIRA 14:10)

(Russia→Politics and government)

TSIPARIS, I.N. [Ciparis, I.]; DZHEKHZHIORYUS, L.M. [Dzerkciorius, L.];  
KAPITAL'NIYY, V.G.; RYBNIKOV, A.N.

Extractive rectification of raw acetic acid using sodium acetate.  
Gidroliz. i lesokhim. prom. 17 no.4:16-19 '64 (MIRA 17:7)

1. Litovskaya sel'skokhozyaystvennaya akademiya (for TSiparis,  
Dzhekzhiorius). 2. Dmitriyevskiy lesokhimicheskiy zavod (for  
Kapital'nyy, Rybnikov).

DZHEKSENBAYEV, O.Sh.

Effect of antibiotics and bacterial growth during slight deviations  
from the optimal temperature. Antibiotiki 3 no.4:82-85 J1-Ag '58  
(MIRA 11:10)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii  
(zav. - chlen-korrespondent AMN SSSR prof. Kh. Kh. Planel'yes)  
Instituta epidemilogii i mikrobiologii imeni N.F. Gamalei AMN SSSR.  
(ANTIBIOTICS)  
(BACTERIA)  
(TEMPERATURE--PHYSIOLOGICAL EFFECT)

DZHEKSENBAYEV, O.Sh. (Moskva)

Effect of higher atmospheric and body temperatures on the course of experimental pneumococcal infection and the effectiveness of penicillin therapy in rats. Pat.fiziol. i eksp.terap. 3 no.1:76 Ja-F '59. (MIRA 12:2)

1. Iz otdela infektsionnoy patologii i eksperimental'noy terapii (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh. Planel'yes) Instituta epidemiologii i mikrobiologii im. Gamalei AMN SSSR.

(PNEUMOCOCCAL INFECTIONS)

(HEAT--PHYSIOLOGICAL EFFECT)

(PENICILLIN)

DZHEKSENBAEV, O.Sh. (Moskva)

Mechanism of action of pyrogenal. Pat.fiziol. i eksp.terap. 3 no.4:  
49-51 JI-Ag '59. (MIRA 12:12)

1. Iz otdela infektsionnoy patologii i eksperimental'noy terapii  
(zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh. Planel'yes) Insti-  
tuta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.  
(PYROGENS pharmacology)



DZHEKSENBAYEV, O.Sh. (Moskva)

Seasonal changes in the basal metabolism of rabbits during the  
use of pyrogenic stimulants. Pat. fiziol. i eksp. terap. 4  
no. 5:66-67 S-O '60. (MIRA 13:12)

1. Iz otdela infektsionnoy patologii i eksperimental'noy terapii  
infektsiy (zav. - ~~chlen~~ korrespondent AMN SSSR prof. Kh.Kh. Planel'yes)  
Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN  
SSSR.

(PYROGENS) (BASAL METABOLISM)

DZHEKSENBAYEV, O.Sh.

Effect of a series of antibiotics on febrile reactions to pyrogenal  
in rabbits. Antibiotiki 6 no.5:417-418 My '61. (MIRA 14:7)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii (zav. -  
chlen-korrespondent AMN SSSR prof. Kh.Kh. Planel'yes) Instituta  
epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR.  
(ANTIBIOTICS) (PYROGENS)

DZHEKSENBAEV, O.Sh.; OZENETSKOVSKIY, N.A.

Pharmacological properties of the antibiotic aurantin. Antibiotiki  
6 no.12:1070-1073 D '61. (MIRA 15:2)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii infektsiy  
(zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh.Planel'yes) Instituta  
epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR.  
(ANTIBIOTICS)

DZHEKSENBAYEV, O.Sh.; OZERETSKOVSKIY, N.A.

Pharmacological properties of the antibiotic sekazin.

Antibiotiki 7 no.4:352-355 Ap '62.

(MIRA 15:3)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii  
infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh.  
Planel'yes) Instituta epidemiologii i mikrobiologii imeni N.F.  
Gamalei AMN SSSR.

(ANTIBIOTICS)

OZERETSKOVSKIY, N.A.; DZHEKSENBAYEV, O.Sh.; PETROPAVLOVSKAYA, I.S.

Distribution of sekazin in the bodies of experimental animals.  
Antibiotiki 7 no.4:356-358 Ap '62. (MIRA 15:3)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii  
infektsiy (zav. - chlen-korrespondent AN SSSR prof. Kh.Kh.  
Planel'yes) Instituta epidemiologii i mikrobiologii imeni N.F.  
Gamalei AN SSSR.

(ANTIBIOTICS)

OZERETSKOVSKIY, N.A.; DZHEKSENBAYEV, O.Sh.

Effect of the antitumor antibiotic, aurantin, on adrenal cortex function. Antibiotiki 7 no.7:627-630 J1'62. (MIRA 16:10)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh. Planel'yes) Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR.

(ANTIBIOTICS) ADRENAL CORTEX)  
(CYTOTOXIC DRUGS)

DZHEKSENBAYEV, O.Sh.; OZERETSKOVSKIY, N.A.

Effect of pyrogenal on the function of adrenal cortex. Biol. eksp.  
biol. i med. 57 no.5:31-33 My '64. (MIRA 18:2)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii  
infektsiy (zav. -- chlen-korrespondent AMN SSSR prof. Kh.Kh.  
Planel'yes) Instituta epidemiologii i mikrobiologii imeni N.F.  
Gamalei (dir. -- prof. P.A.Vershilova) AMN SSSR, Moskva. Submitted  
July 9, 1962.

POKHRENNYAYEV, O.Sh.

Formation of endogenous pyrogen in normal and thyroidectomized rabbits. Biul. eksp. biol. i med. 57 no.4:49-53 Ap '64.

(MIRL 19:3)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii inf'kzii (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh. Danell'yes) Instituta epidemiologii i mikrobiologii imeni Gagarina (dir. - prof. P.A. Vershilova) AMN SSSR, Moskva. Submitted April 2, 1963.



DZHEKSENBAYEV, O.Sh.

Some aspects of the activity of blood serum in animals with  
pyrexia. Biul. eksp. biol. i med. 57 no.6:34-37 Je '64.

(MIRA 18:4)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii  
infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh.  
Flanel'yes) Instituta epidemiologii i mikrobiologii imeni  
Gamalei (dir. - prof. P.A.Vershilova) AMN SSSR, Moskva.

EVGENIY P. KRYZHEV, D.Sc.

Dynamics of the disappearance of bacterial lipopolysaccharide from the blood and formation of endogenic serum pyrogen in normal and thyroidectomized rabbits. Biol. eksp. biol. i med. 29 no. 4:420-42. Ju '66. (MIRA 18:6)

2. Osnovnye infektsionnyye patologii i eksperimental'naya terapiya infektsiy (zav. i uch.-korr. spets. AMN SSSR prof. Kh. Kh. Flanel'yan) Institut epidemiologii i mikrobiologii imeni Gamalei (dir. i uch.-korr. spets. AMN SSSR prof. P. A. Vershilova) AMN SSSR, Moskva.

DORDZHIYEV, B.S.; KIRBASOVA, M.B.; MUSHANOV, S.P.; MANZHIKOVA, R.M.;  
CHERNOUSOV, I.P.; KIYEVSKAYA, V.I.; DZHELACHINOV, E.B., red.  
GAYDASH, Ya., tekhn. red.

[Economy of the Kalmyk A.S.S.R.; statistical collection] Narodnoe  
khoziaistvo Kalmytskoi ASSR; statisticheskii sbornik. Elista,  
Kalmytskoe knizhnoe izd-vo, 1960. 107 p. (MIRA 14:8)

1. Kalmyk A.S.S.R. Statisticheskoye upravleniye. 2. Kollektiv  
rabotnikov Statisticheskogo upravleniya Kalmytskoy ASSR (for all  
except Gaydash). 3. Nachal'nik Statisticheskogo upravleniya Kal-  
mytskoy ASSR (for Dzhelachinov)  
(Kalmyk A.S.S.R.—Statistics)

ACC NR: AP6010463

(A,N)

SOURCE CODE: UR/0375/66/000/003/0014/0022

AUTHOR: Dzhelaukhov, Kh. M. (Major general)

ORG: none

TITLE: Economic potential in a modern war

SOURCE: Morskoy sbornik, no. 3, 1966, 14-22

TOPIC TAGS: economic warfare, economics, military strategy

ABSTRACT: Defining economic potential as the totality of the potentiality of a country to extract and produce some quantity of material goods to meet the diverse demands of a state, the author declares that the main index of the economic potential of any country is the per capita production of the basic types of goods. The economic potential also includes the existing financial system with gold and currency reserves, various material reserves including those of strategic raw materials, the organization of the economic structure which permits its reorganization in the case of war, the supply (distribution) system, economic relations with friendly countries, etc. However, the meaning of economic potential in a modern war cannot be fully understood without defining the concept of military economic potential. The author defines military economic potential as the aggregate of the potentialities of all basic branches of the national economy to meet the needs of the armed forces during peace and ea-

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Card 1/2

ACC NR: AP6010463

pecially during war until its completion. The military economic potential includes branches of the economy that are directly engaged in the production of military goods and material and technical means intended for meeting the requirements of armed forces. Having defined these concepts the author proceeds to analyze these various factors and states that the military economic potential and its intimate relation with the moral and political factor play a decisive role in achieving victory. With equal or comparable economic potentialities of the warring sides (coalitions) superiority is achieved by that side which has a progressive social and economic structure and is waging a justifiable war. Political goals have a substantial effect on the mobilization of the military economic potentialities of a given country and ultimately on the course and outcome of the war. In conclusion the author emphasizes that the creation of the material and technical base of communism, the rapid growth in the rate of production of material goods in the Soviet Union and in other socialist countries, the advancing development of energetics, machine construction and metalworking, the chemical industry, i.e., branches determining technical progress in the national economy, improvement in modern means of transportation and communication, and an increase of agricultural products are extraordinarily expanding the Soviet Union's economic potentialities and are a reliable guarantee of providing the armed forces with material means for waging a modern war if, contrary to common sense, aggressors wage an attack. Orig. art. has: 4 tables.

SUB CODE: 15,05/ SUBM DATE: none

Card 2/2

VENGRENOSKIY, Sergey Iosifovich, nauchnyy sotr., kand. sel'khoz.  
nauk ; DZHELALI, Nadezhda Ivanovna, nauchnyy sotr.;  
LUZHETSKAYA, Lyudmila Grigor'yevna, nauchnyy sotr., agronom;  
SHIBKO, Vladimir Andreyevich, nauchnyy sotr., agronom;  
ZLENKO, G., red.; MOLCHANOVA, T., tekhn. red.

[Peas in Odessa Province] Gorokh na Odesshchine. Odessa,  
Odesskoe knizhnoe izd-vo, 1962. 78 p. (MIRA 15:6)

1. Vsesoyuznyy selektsionno-geneticheskiy institut imeni  
T.D.Lysenko (for Vengrenovskiy, Dzhelali). 2. Kolkhoz "Zarya  
kommunizma" Kodymskogo rayona (for Luzhetskaya). 3. Sel'sko-  
khozyaystvennaya artel' "Ukraina" Kiliyskogo rayona (for  
Shibko).

(Odessa Province--Peas)

~~DZELEPOV B.S.~~  
DZELEPOV, B.S., ALIKHANOV, A.I., and ALICHANIAN, A.I.

" $\beta$ -Spectra of Some Radioactive Elements," Nature, Vol. 135, p. 393, 1935.

Physical-Technical Institute, Leningrad

*DZELEPOV B.S.*  
DZELEPOV, B.S., ALIKHANOV, A.I., and ALICHANIAN, A.I.

---

"Beta Ray Spectra of Artificially Produced Radioactive Elements," Nature,  
Vol. 136, pp. 257-258, 1935,

Physical-Technical Institute, Leningrad.



DZHELEPOV B.S.

DVELEPOV, B.S., ALICHANIAN, A.I., and ALIKHANOV, A.I.

"The Continuous Spectra of RaE and RaF<sup>30</sup>," Nature, Vol. 137, pp. 314-315,  
1936.

Physical-Technical Institute, Leningrad.

Influence of the charge of a nucleus on the form of its  $\alpha$  spectrum. H. S. Dzhelepov. *Bull. Acad. Sci. U.S.S.R. Div. Phys. Math. Nat. Sci.* 1936, 673-6 in English (1936).—The spectra of  $^{27}\text{Al}^{13+}$ ,  $^{27}\text{Al}^{12+}$ ,  $^{27}\text{Al}^{11+}$  and  $^{27}\text{Al}^{10+}$  (H) were studied. When the nuclear charge is small, electron and positron curves differ little. In heavy elements a relatively larger no. of slow electrons is observed so that the ratio of the av. to the max. energy is decreased.  
Gregg M. Evans

ASD SLA METALLURGICAL LITERATURE CLASSIFICATION

BC

6-1

1ST AND 2ND COLUMNS

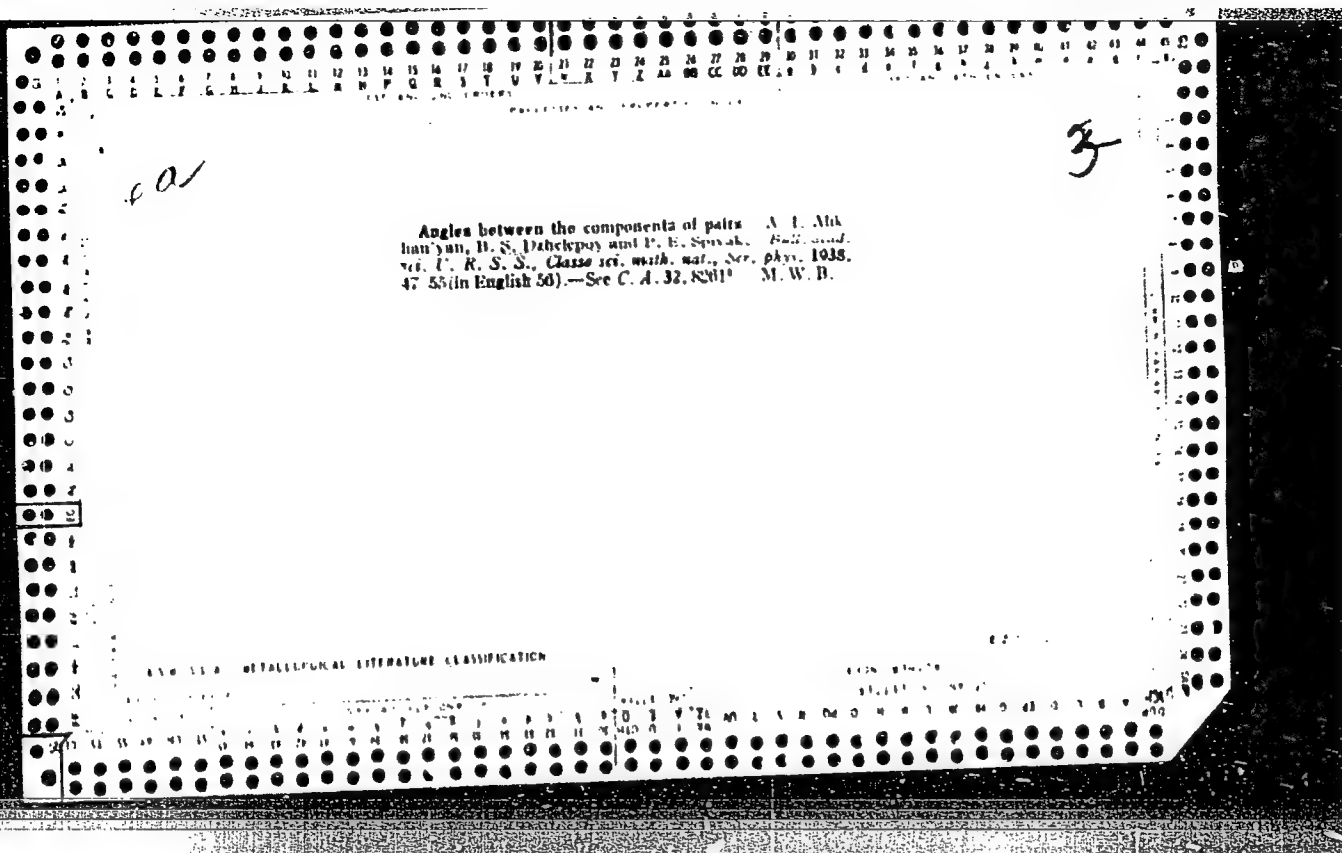
PROCESSES AND PROPERTIES

**X-Ray scattering in liquids. B. S. DELEPOV**  
 (Physikal. Z. Sovietunion, 1937, 11, 157-167).—  
 Apparatus described incorporates a 40-kv. Coolidge  
 tube with Mo anti-cathode, and NaCl diffraction for  
 X-ray diffraction of org. liquids contained in an  
 Al vessel with walls 10  $\mu$  thick. Measurement (with  
 $K\alpha_1$  and  $K\alpha_2$  radiation) is made over a small angle  
 range with an ionisation chamber filled with EtBr  
 vapour. The method allows observations to be made  
 during transient physical phenomena in the examined  
 liquid. Intensity curves for  $C_6H_6$ , MeOH, EtOH,  
 and polymerised styrene are given. L. G. G.

OPEN

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

FIRST COLUMN										SECOND COLUMN										THIRD COLUMN										FOURTH COLUMN									
SUBJECT										SUBJECT										SUBJECT										SUBJECT									



117-7-1-PCV-78

PROCESSES AND PROPERTIES INDEX

A-1

Angles between the components of a pair [of particles produced by  $\gamma$ -rays]. A. ALL-CHANTIN, B. DZIKOV, and P. SRIVAK (Compt. rend. Acad. Sci. U.R.S.S., 1938, 19, 379-380).—The no. of particles produced by internal conversion of  $\gamma$ -rays from 20 mc. of Po deposited electrically on a thin foil (30  $\mu$ ) of Al-Be alloy (65% Be) were measured by the method of coincidences in two Geiger counters set at 0°, 30°, 60°, 90°, 120°, 150°, and 180° to each other. The angles between the pairs created by  $\gamma$ -rays (Po and Be) in Pb were also investigated. A strong max. in the no. of coincidences occurs at 65-80°. F. J. L.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGION 1										REGION 2										REGION 3										REGION 4									
SUBREGION 1										SUBREGION 2										SUBREGION 3										SUBREGION 4									
SUBSUBREGION 1										SUBSUBREGION 2										SUBSUBREGION 3										SUBSUBREGION 4									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

DZHELEPOV B.S.

DVELEPOV, B.S., ALIKHANOV, A.I., and ALICHANIAN, A.I.

"On the Form of the  $\beta$ -Spectrum of Ra E in the Vicinity of the Upper Limit and the Mass of the Neutrino," The Physical Review, Vol. 53, pp. 766-767, 1938.

Physical.-Technical Institute, Leningrad, U.S.S.R.

A new method of measuring the energy of hard  $\gamma$ -rays.  
B. S. Dzhelepov. *Compt. rend. acad. sci. U. R. S. S.* 23,  
24-7(1939) (in English).—The energy of positron-electron  
pairs formed by absorption of the  $\gamma$ -rays in Pb is measured  
by placing the source between two counters in a magnetic  
field and noting the no. of coincidences as a function of the  
field strength.  $^{214}\text{C}$  shows  $\gamma$ -lines at 2.7, 4.7 and 7.0  
m. e. v., agreeing with Bothe (*C. A.* 30, 5117), but the  
intensities of the last two are in the ratio of approx. 14:1,  
in disagreement with H. A. O. Allen

Physics - Tech. Inst. Leningrad,  
c 1939.

ASD 51.8 METALLURGICAL LITERATURE CLASSIFICATION

DZELEPOV, B.S.

"On the B-Ray Spectra of Mn<sup>56</sup>, Dy<sup>165</sup>, and Au<sup>198</sup>," Dok. An, 30, No. 7, 1941.

Phys-Tech. Inst. State Univ. Leningrad. c1941.



5

1st and 2nd orders

POSSIBLY ONE OF THE FOLLOWING

The angular distribution of pairs produced by  $\gamma$  rays from  $^{214}\text{Pb}$ ,  $^{214}\text{Bi}$ ,  $^{214}\text{Po}$  and  $^{214}\text{At}$  (English summary). Phys. Tech. Inst. U.S.S.R. 15, 665 (1945) (English summary). The apparent dependence of the divergence angle of positron-electron pairs on the target's  $Z$  (L. V. Gerasimov and M. M. Frank, U.S.S.R. 15, 665 (1945)) could be due to the variation of scattering power among the gases used simultaneously as targets and chamber gases -  $\text{D}_2$  and  $\text{Ar}$ . At 100 kV and 21.4 Ph and 1.00, 2.10, and 2.40 At (with  $\gamma$  rays from  $^{214}\text{Pb}$ ) observing the no. of coincidences per hr. as a function of the angle formed by the axes of the G.M. tubes, which converged on the target. The resolving time of the coincidence circuit was  $2.5 \times 10^{-8}$  sec. The total coincidence rate was 50-240% of background rate. The curves for positron-electron path angles vs. no. of pairs per hr. coincided almost exactly for the 11.4 Ph and 2.10-2.40 At targets; thus the rate of pair-formation in the region measured (5-30 per hr.) was not a function of  $Z$ . Cyrus Feldman

Phys. Tech. Inst., U.S.S.R., -1945-

AIC  
- 111

*Neutrino*

1527. The Mass of the Neutrino, by B. S. Dzhalepov and N. M. Anton'evs. *Tezhi*  
*leningradskogo Universiteta*, No. 1, p. 19-54, 1946. (In Russian).

Critical review (45 references), arriving at the conclusion that it cannot be decided  
as yet whether the mass of the neutrino is rigorously zero or between 0 and 0.15 times  
the mass of the electron. (CA)

**$\beta$ -Ray spectrum of  $K^{40}$ .** B. S. Dzhelapov, M. Kop'eva, and E. Vorob'eva. *Ann. Chim. Univ. Ferrara*, 1969, 17, 55-60; *Phys. Rev. C*, 1969, 10, 1494. The  $\beta$ -spectrum of the isotope  $K^{40} \rightarrow Ca^{40}$  has an upper limit of  $1.46 \pm 0.03$  Mev. and a single max. at about 1400 ke. A spectral magnetic spectrometer with 7 counters is described. G. M. P.

A 18.11.4 METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS										PROCESSES AND PROPERTIES INDEX										1ST AND 2ND CATEGORIES									
1827. On $\gamma$ -Spectroscopy Using Compton Electrons ( $\gamma$ -спектроскопия по комптоновским электронам) by B. T. Dahelapov and M. L. Orbeli <u>Doklady Akad. Nauk SSSR</u> 62 615-617 (1948) Oct 11 (In Russian)																													
<p>Most <math>\gamma</math>-spectra contain lines in the energy range 0.5-3 Mev. Since the maximum probability of the Compton effect belongs to these energies, it is convenient to use the Compton electrons for the study of the corresponding part of a <math>\gamma</math>-spectrum. The first application of this method was made by Skobel'tsyn [<u>Z. Physik</u> 43 354 (1927)], who measured the energies of electrons from <math>\gamma</math>-rays of RaC in a Wilson chamber placed in a magnetic field. Letyshev [<u>Zhur. Eksptl. i Teoret. Fiz.</u> 14 65 (1944)] used a mass spectrometer and counter coincidences for the study of RaC and Th(C + C<sup>2</sup>) on samples having 300 mC activity. The present author's modifications of Letyshev's instrument (two points of intersection of the electron rays instead of one) permitted the use of considerably lower activities (15 and even 3 mC). Owing to the wide separation of the 2 counters, the cosmic-ray background was negligibly weak. The instrument's characteristics were: R = 5.5 cm, <math>\theta = 4^\circ</math>, slit 1-3 mm, thickness of the celluloid target 50 <math>\mu</math>. Two</p>																													
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examples of  $\gamma$ -lines determined by this method are shown: the line  
2620 Kev of ThC" and the line 1708 Kev of Sb<sup>124</sup>.

DZHELEPOV, V. S.

PA 35/49T87

USSR/Nuclear Physics - Atomic Nuclei - Sep 48  
Disintegration of  
Nuclear Physics - Radioactivity

"Type  $M_{\beta}^{2Z-1}$  Radioactive Nuclei," V. S. Dzhelepoz,  
Radium Inst, Acad Sci USSR, 4 pp

613.785

"Dok Ak Nauk SSSR" Vol LXIII, No 1

(4)

Attempts to apply Fermi's formula for the relation  
between decay constant and decay energy for  $M_{\beta}^{2Z-1}$   
nuclei. In these nuclei, during beta-decay a proton  
is replaced by a neutron, and remainder of the nu-  
cleus contains same number of protons and neutrons.  
Submitted by Acad P. I. Lukirskiy, 29 Jun 48.

35/49T87

C. a.

1951

3 a.

The  $\beta$ -decay of tritium. M. R. Volkanski, B. S. Dzhelapov, and I. A. Siv (A. A. Zhukov State Univ., Leningrad). *Soviet Russ. Sci. Periodical Lit.* 2, 455 (1949) (in English). See C. A. 43, 1949a R J C.

DZHELEPCV, E.S., KUDRVAVTSEVA, A.V.

26912. DZHELEPCV, E.S., KUDRVAVTSEVA, A.V.- Tablitsy po raspada. Proizbenedniya  
Zhurnal eksperiment. Teoret, Fiziki, 1949, VYP. 9, s. 761-83-Bibliogr: 320  
nab.

SO: Letopis'Zhurnal'nykh Statey, Vol. 36, 1949.



DZHELEPCV, B.S.

26911. DZHELEPCV, B.S.-O proizvedeniyakh v teorii b raspada. Zhurnal eksperim. i teoret. Fiziki, 1949 VYP 9 s. 784-95--Bibliogr: 15 nazb.

SO: Letopis'Zhurnal'nykh Statey, Vol. 36, 1949.

PA 46/49T87

DZHELEPOV, B. S.

USSR/Nuclear Physics - Nuclei  
Nuclear Physics - Radioactivity

May 49

"Radioactive Nuclei of the Type  $M_Z^{2Z-1}$ " B. S. Dzhelepor, Padium Inst, Acad Sci USSR, 21 pp

"Zhur Ekapor 1 Teoret Fiz" Vol XIX, No 5

All nuclei of type  $M_Z^{2Z-1}$ , beginning with  $C_{6}^{11}$ , disintegrate with release of positrons. Beta-decay of these nuclei is a permissible transition to ground state of nuclear product. Beta-decay at primary level is not accompanied by gamma radiation. Derives formulas for energy of beta-decay, constant of beta-decay, half-life, and

46/49T87

USSR/Nuclear Physics - Nuclei (Contd) May 49

ratio of probability of K-capture to positron emission for this type. Thus, almost all basic characteristics of beta-decay for this type may be predetermined. Submitted 23 Nov 48.

46/49T87

62/39T96

DZHELEPOV, B. S.

USSR/Nuclear Physics - Beta Decay

Sep 49

"Tables on Beta-Decay: I, the  $\beta^-$  Products,"  
B. S. Dzheleпов, A. V. Kudryavtseva, Leningrad  
State U, 23 pp

"Zhur Ekaper i Teoret Fiz" Vol XIX, No 9,  
pp 761-83.

Selected most reliable data available on decay  
periods, boundaries of spectra, and type of decay  
for 313 beta-active substances. Used this data  
to calculate the  $\beta^-$  products. Submitted 4 May 49.

62/49T96

DZHELEPOV, B. S.

62/49T97

USSR/Nuclear Physics - Beta Decay

Sep 49

"The  $\beta$  Products in the Theory of Beta-Decay,"  
B. S. Dzhelapov, Leningrad State U, 11 pp

"Zhur Ekspier i Teoret Fiz" Vol XIX, No 9,  
pp 784-95.

Having calculated the  $\beta$  products ( $E_\beta$ ,  $Z$ ) for all  
beta-active substances from available data, ana-  
lyzes the distribution of  $\beta$  values according to  
magnitude. Concludes that the number of regular-  
ities observed, i.e., the constancy of  $\beta$  for  
mirror (isomeric) nuclei, the distinct division  
into A and B groups, the form of the beta-spectrum  
of members of these groups, etc., all confirm

62/49T97

USSR/Nuclear Physics - Beta Decay (Contd) Sep 49

the correctness of Fermi's theory. Submitted  
4 May 49.

62/49T97

DZHELEPOV, B. S.

PA 27/49T85

USSR/Nuclear Physics - Electrons  
Nuclear Physics - Elementary Particles Jan 49

" $\beta^+$  and  $\beta^-$  Dissociation in  $\text{Br}^{80}$ ," B. S.  
Dzhelepor, N. M. Anton'yeva, S. A. Shestopalova,  
4 pp

"Dok Ak Nauk SSSR" Vol LXIV, No 3, pp 309-12.

To study beta-plus and beta-minus disintegration,  
small quantity of electrons or positrons must be  
observed in presence of large quantity of particles  
of opposite sign. This presents special require-  
ment for the spectrometer separating the particles:  
diffusion must be almost completely eliminated,

27/49T85

USSR/Nuclear Physics - Electrons (Contd) Jan 49

and at same time wide electron rays must be used.  
Solution of this problem is detailed. Submitted  
4 Sep 48.

27/49T85

DZHELEPOV, B. S.

USSR/Physics  
Spectrum Analysis  
Gold

Feb 49

B-Spectrum of  $\text{Au}^{198}$ , B. S. Dzheleпов, A. A. Bashilev, A. V. Zolotavin, E. M. Anton'yeva, Sci Res Phys Inst, Leningrad State U, 3 pp

"Dok Ak Nauk SSSR" Vol LXXV, No 6, pp 803-5.

Studied the B-spectrum of  $\text{Au}^{198}$ , using a new magnetic spectrometer with improved focus ( $\phi = 30^\circ$ ,  $P = 3$  (w/p/p = 1 G)). Results correlated well with those of du Mond and Watson. Submitted Acad P. I. Leikirehiy, 10 Oct 49.

PA 29/49T99

117 AND 2ND COVER										2ND AND 4TH COVER									
PROCESS AND PROPERTIES INDEX																			
<p><b>803</b> Selection Rules for the <math>\beta</math> Decay. R. S. Dzhelapov. Doklady Akad. Nauk S. S. R. 65, 149-50(1949) (in Russian).</p> <p>According to accepted theories, the variation of the mechanical moment and the symmetry of the initial and final wave functions determine whether a <math>\beta</math> disintegration is allowed or forbidden. The application of these criteria is difficult, because, as a rule, the above magnitudes are unknown for radioactive nuclei. The usual procedure is to revert to tables of the <math>ft</math> values. It is from the study of such tables that the author derived the following criterion: a <math>\beta</math> decay is allowed if it does not involve a rebuilding of the nucleus, (<math>X = 0</math>), a <math>\beta</math> decay is forbidden, if such a rebuilding takes place, (<math>X \neq 0</math>). The energy of the rebuilding <math>X</math> is equal to <math>E - E_k - E_m</math>, where <math>E</math> is the energy of the <math>\beta</math> disintegration, <math>E_k</math> is the change in the coulomb energy, and <math>E_m = \Delta(n-p)</math> is the change in the mass. An important consequence is that all <math>\beta^+</math> decays, except <math>H^3 \rightarrow H^2</math>, are forbidden, since in these cases the increase of <math>E_k</math> is not compensated by the absolute value of <math>n-p</math>. The physical meaning of the new criterion resides in the fact that, whatever the changes in the spin and the symmetry, any rebuilding of the nucleus strongly modifies the wave function of the system and, consequently, lowers the matrix element of the disintegration.</p>																			
A 58-514 METALLURGICAL LITERATURE CLASSIFICATION																			
117 AND 2ND COVER										2ND AND 4TH COVER									

DEHELEPOV, B. S.

USSR/Nuclear Physics - Beta-Decay  
Nuclear Physics - Hydrogen Isotope

Jun 49

"The Problem of Beta-Disintegration of  $H^3$ ," H. Ye. Voyhanskiy, B. S. Dehelepov, L. A. Sliv, Leningrad State U ineni A. A. Zhdanov, 3 pp

"Dok Ak Nauk SSSR" Vol LXXI, No 5, pp 829-32.

All "mirror" nuclei, type  $M^{2z+1}_z$ , form a compact group of permissible beta-emitters; their theory concerns properties of type  $M^{2z+1}_z$  beta-emitters, upper limits of which change from 18 keV to 5,000 keV and the period from one second to  $4 \cdot 10^6$  seconds.

Submitted by Acad P. I. Lukirskiy, 18 Apr 49.

PA 50/4787



DZHELEPOV, B. S.

PA 173189

USSR/Nuclear Physics - Gamma Rays 21 Dec 49

"Polarization of Anihilation Gamma-Quanta,"  
N. A. Vlasov, B. S. Dzheleпов

"Dok Ak Nauk SSSR" Vol LXIX, No 6, pp 777-780

From Dirac's theory of 2-quantum anihilation, it follows that during pair-anihilation (electron and positron) in s-state 2 quantum must be polarized in perpendicular planes, as discussed by I. Ya. Pomeranchuk in "Dok Ak Nauk SSSR" Vol LX, 1948. Theory and experience both testify that 2-quantum anihilation under ordinary conditions dominates.

173189

USSR/Nuclear Physics - Gamma Rays 21 Dec 49  
(Contd)

Problem of polarization of 2-anihilation quanta can be proved by exptl tests, as described here, with lead block, C<sub>1</sub> and O<sub>2</sub> counters, radiating source, and aluminum cones. Submitted by Acad. Lukatskiy 2 Jul 49.

173189

DZHELEPOV, B. S.

PA 187T82

USSR/Physics - Electron Micro-  
scope May/Jun 50

"Ketron, the Magnetic Spectrometer With Im-  
proved Focusing." B. S. Dzhelapov, A. A.  
Bashlov; Sci Res Phys Inst, Leningrad State  
U Imeni Zhdanov

<sup>14</sup>  
Iz Ak Nauk SSSR, Ser Fiz Vol ~~XIV~~, No. 3,  
pp 264-298

Authors describe the ketron, an instr construc-  
ted by them, which uses inhomogeneous transverse  
magnetic fld decreasing in one direction. Give  
results of controlled measurements of std elec-  
tron lines for resolving power 0.5% and for  
187T82

USSR/Physics - Electron Micro-  
scope (Contd) May/Jun 50

solid angle of capture  $\varphi = 30^\circ$  and  $\epsilon = \pm 3^\circ$ .  
Lines of conversion electrons of <sup>201</sup>miller 198  
gamma-rays of Th(B+C+C'+C''), RaC and Au 198  
are taken as the std. Submitted 24 Apr 50 at  
session of the Dept of Physicomath Sci, Acad  
Sci USSR.

187T82

DZHELEPOV, B. S.

USSR/Nuclear Physics - Gamma Rays

May/Jun 50

"Radiation of Au<sup>198</sup>, Ho<sup>166</sup> and Lu<sup>177</sup>, "N. M. Anton'yeva, A. A. Bashilov, B. S. Dzhelepov, A. V. Zolotarev, Sci Res Phys. Inst, Leningrad State Univ.

"Iz Ak Nauk SSSR, Ser Fiz" Vol XIV, No 3, Pp 299-318

Describes results of studying conversion radiation of Au<sup>198</sup>, Ho<sup>166</sup> and Lu<sup>177</sup> as measured by the "ketron," a spectrometer with improved focusing (cf. Per Abs 187T82). Beta-spectrum of Au<sup>198</sup> was found to be simple; spectra of Ho<sup>166</sup> and Lu<sup>177</sup>, complex. Computes assumed half life of Ho<sup>166</sup>. Submitted 24 Apr 50 at session of the Dept of Physicomath Sci, Acad Sci USSR.

Pa 187T68

DZHELEPOV, B.

Zhurnal Eksperimental Teoreticheskoi Fiziki, 1950, Vol. 20, Nol 2, 1950

"On the Question of the Fine Structure of The  $\gamma$ -Lines of BaE:" by G.D. Latyshev.  
Correction to the article by B. Dzhelepov and A.V. Kudryavtseva (Zh. Eskp. Teor.  
Fiz., 1949, 19, ). Z.Zavelskmi.

DZHELEPOV, B.

EA 161T112

USSR/Nuclear Physics - Nuclei, Atomic Apr 50

"Table of Atomic Nuclei," B. Dzhelepov, S. Petrovich, 95 pp.

"Uspekhi Fiz Nauk" Vol XL, No 4

Includes 85-page table of atomic nuclei, giving: atomic number (1 to 97), stable nuclei, prevalence, half life, conversion types (alpha, beta, gamma, neutron, K-conversion), energy of alpha and beta in Mev, energy of gamma rays in Mev, and nuclear reactions. Bibliography lists sources of information, mainly non-Russian.

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161T112

168T62

DZHELEPOV, B.

USSR/Nuclear Physics - Helium

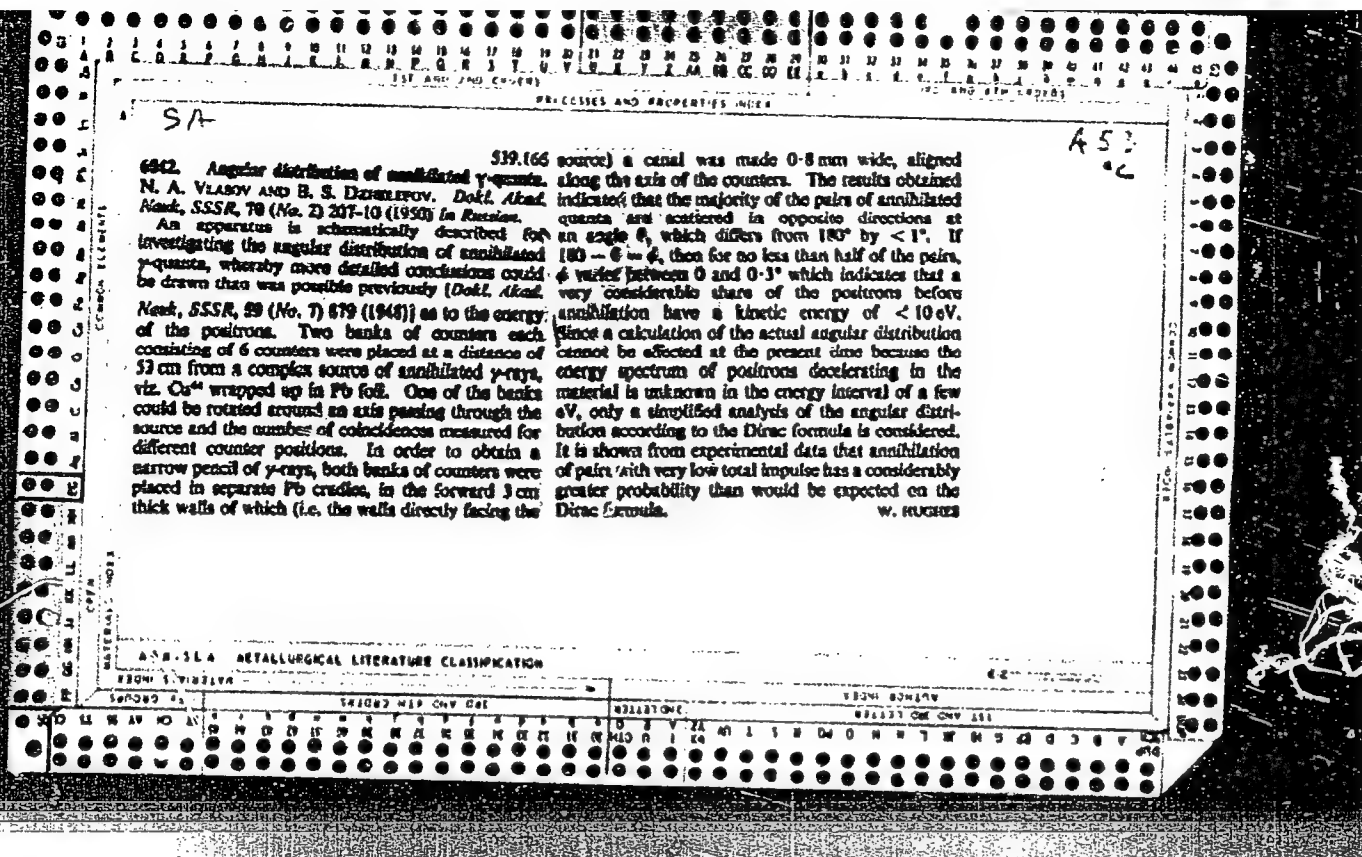
Jun 50

"Radioactive Helium Isotopes," K. Artemov, B. Dzhele-  
pov

"Uspekhi Fiz Nauk" Vol XLI, No 2, pp 189-210

Comprehensive survey of available literature on  $\text{He}^5$   
and  $\text{He}^6$ . Discusses reactions  $\text{Li}^7 + \text{H}^2 = \text{He}^4 + \text{He}^5$ ,  $\text{He}^4 + \text{H}^2 = \text{He}^5$ , and  $\text{He}^4 + \text{H}^3 = \text{He}^5 + \text{H}$ . In section on  $\text{He}^6$ ,  
discusses threshold and cross section of the reactions  
 $\text{Be}^9(\alpha, \gamma)\text{He}^6$ ,  $\text{Li}^6(\alpha, p)\text{He}^6$ , and  $\text{Li}^7(\alpha, p)\text{He}^6$ . Also  
discusses use of  $\text{He}^6$  to check neutrino hypothesis.  
Only eight of the 65 sources listed are Soviet.

168T62



DZHELIPOV, B. S.

USSR/Nuclear Physics - Beta-Spectrum  
Isotope

Jan 50

"Beta-Spectrum of  $\text{Ho}^{166}$ ," N. M. Anton'yeva, A. A. Bashilov, B. S. Dzhelipov, A. V. Zolotavin, Phys Inst, Leningrad State U imeni A. A. Zhdanov, 4 pp

"Dok Ak Nauk SSSR" Vol LXX, No 3

Used magnetic spectrometer with improved focusing to study beta-spectrum of  $\text{Ho}^{166}$ . Thin layer of  $\text{Ho}_2\text{O}_3$ , irradiated by neutrons and deposited on strip of cigarette paper, was electron source. Electron radiation of  $\text{Ho}^{166}$  consists of continuous beta-spectrum with limit of about 1,840 kev and intense group of slow electrons less than 100 kev. Submitted 21 Sep 49 by Acad P. I. Lukirskiy.

158T80



DZHELEPOV, B.S.

"Beta Spectrum of:  $\text{Lu}^{177}$ ," Dok.AN., 70, No. 4, 1950.  
Physics Inst., Ak.A. Zhdanov Leningrad State U., -c1950-.

SA  
sect. A

*Radioactivity*

539.166  
6827. Gamma radiation of Ag<sup>110</sup>. B. S. DENISLOV,  
N. N. ZHUKOVSKI AND YU. V. KIBOLNOV. *Guide*  
*Russ. Period. Lit. Brookhaven*, 4, 369-70 (Dec., 1951).  
Full translation of article abstracted in Abstr. 9671  
(1951).

DZHELEPOV, B. S.

195T63

USSR/Nuclear Physics

Jul/Aug 51

"Mirror" Nuclei of Higher Order, "B. S. Dzheleпов

"Iz Ak Nauk SSSR, Ser Fiz" Vol XV, No 4, pp 496-504

PA 195T63

"Mirror" nuclei are isobars of types  $N + P$ ,  $N + n$ , where  $N$  is "residue nucleus" with equal number of protons ( $p$ ) and neutrons ( $n$ ). Such nuclear pairs differ in mass according to difference in Coulomb energy and to mass difference ( $p - n$ ), indicating that binding energy of proton or neutron to residual nucleus is the same. Comparison of nuclear masses

195T63

USSR/Nuclear Physics (Contd)

Jul/Aug 51

of types  $N + 2p$  and  $N + 2n$  is now possible for 5 pairs and measuring methods were reported by author at a seminar of Sci Res Inst of Phys, Leningrad State U, 2 Oct 50.

DZHELEPOV, B.S.

✓Tables on  $\beta$ -decomposition. II. Effect of the Coulomb field on  $\beta$ -spectra. B. S. Dzheleпов and L. N. Zyrjanova (Leningrad State Univ.). *Zh. Eksp. i Teor. Fiz.* 21, 823-41 (1951). — Excerpts from the tables of values for  $\beta$ -decay are given for the value of  $F(E, Z)$ , which describes the effect of the Coulomb field on the form of  $\beta$ -spectra. The value of  $F(E, Z)$  was calcd. by means of an approx. formula developed earlier (Hulme, *C.A.* 26, 911). 14 pages of tables.  
J. Rortar Leach

*Rev. L. Leach*

178T90

THESE, B. S.

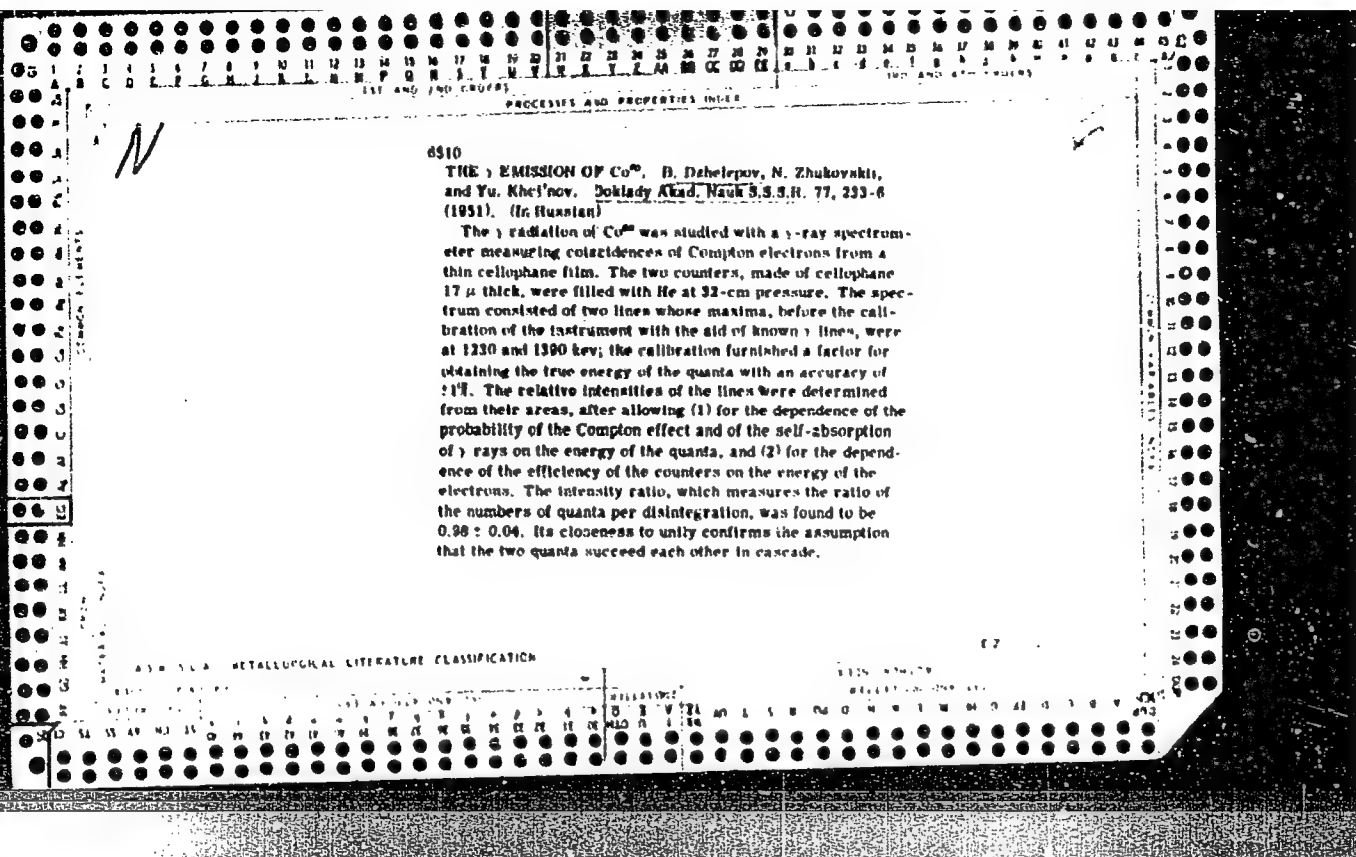
USSR/Nuclear Physics - Chlorine, Level of 21 Jan 51

"Natural Width of the Gamma Level of  $Cl^{36*}$ ," B. S.  
Dzhelepov

"Dok Ak Nauk SSSR" Vol LXXVI, No 3, pp 385-388

Considers formation and decay of  $Cl^{36*}$  resulting in  
release of gamma quanta, proton, alpha particle, and  
thermal neutron. Mainly survey on present-day lit  
(mostly non-Russian) on subject decay. Submitted  
23 Nov 50 by Acad P. I. Lukirskiy.

178T90



1ST AND 2ND COPIES										3RD AND 4TH COPIES									
PROCESSES AND PROPERTIES INDEX																			
<p>6336</p> <p>ON A PRECISE FOCUSING OF RECOIL ELECTRONS.</p> <p>B. S. Debelopov. Doklady Akad. Nauk S.S.S.R. 77, 389-90 (1951). (In Russian)</p> <p>It has been reported in a former note (Doklady Akad. Nauk S.S.S.R. 62, 615(1948)) that Compton electrons projected by a parallel beam of <math>\gamma</math> rays from a thin celluloid film can be used for measuring <math>\gamma</math> spectra. However, the spectral lines obtained are wide because the focusing of Compton electrons by a homogeneous magnetic field is not sharp. It is shown here geometrically that, by using a diverging <math>\gamma</math>-ray beam and a curved film, accurate focusing can be obtained.</p>																			
A.S.R. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION										FROM BOMENY									
FROM SYRISIAH										FROM BOMENY									
FROM SYRISIAH										FROM BOMENY									

PRECEDENCE AND PRIORITY INDEX																									
1ST AND 2ND CATEGORIES													3RD AND 4TH CATEGORIES												
<p>✓</p> <p>7. RADIATION OF <math>Ag^{110}</math>. D. S. Dzhejgov, N. N. Zhukovskii, and Yu. V. Khol'nov, Doklady Akad. Nauk S.S.S.R. 77, No. 4, 507-8(1951) Apr. 1. (In Russian)</p> <p>The <math>\gamma</math>-ray spectrum of <math>Ag^{110}</math> is shown. Four lines of 652 <math>\pm 7</math> (1.00), 868 <math>\pm 9</math> (1.03), 1388 (0.25), and 1484 (0.22) kev, where the figures in parentheses are relative intensities, were found. These are compared with the results of Sieglahn (Phys. Rev. 77, 233(1950); NSA 4-1577), a line at 930 kev given by this author was not resolved in the present experiment.</p>																									
<p>ASH-51-A METALLURGICAL LITERATURE CLASSIFICATION</p> <p>110N 51-0111-1</p> <p>110N 51-0111-1</p> <p>110N 51-0111-1</p>																									



1492\* Comparative Investigation of Absorption of Monochromatic Positrons and Electrons. (In Russian.) K. A. Baskova and B. S. Dzhelepov. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 77, Apr. 21, 1951, p. 1001-1002.

Comparison of curves of absorption of above in Al and Pb reveals that in Al, the absorption curves of electrons and positrons of the same energy practically coincide, whereas, in Pb, they are slightly different, the positrons being absorbed more weakly. 14 ref.

Dzhelezov, E. S.

May-Jun 52

USSR/Nuclear Physics - Beta -Spectrum of Ir

"The Beta-Spectrum of Ir<sup>192</sup>," A. A. Bashilov, N. M. Anton'yeva, E. S. Dzhelezov

"Iz Ak Nauk SSSR, Ser Fiz" Vol 16, No 3, pp 264-305

The exptl data in this report was heard 14 Feb 51 in the Acad Sci USSR. Discusses the general knowledge concerning the radioactive isotope Ir<sup>192</sup>; the spectrometer used and the conditions governing the measurements; general appearance of the beta-spectrum of Ir<sup>192</sup>; comparison of the results of the measurements of the beta-spectrum of Ir<sup>192</sup> with the data of various authors mostly foreign; the spectrum of the electrons of internal conversion of Ir<sup>192</sup> and their conversion lines and energy lines; the spectrum of electrons of conversion of gamma-rays of Ir<sup>192</sup> according various authors; the gamma-radiation of Ir<sup>192</sup> according to the data of various authors; positrons and the capture of atomic electrons; the scheme describing the decay of Ir<sup>192</sup>. Acknowledges the assistance of Ye. G. Kuznetsov.

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DZHELEPOV, B. S.

FA 242T96

USSR/Nuclear Physics - Nuclear Masses. Dec 52

"Masses of Light Nuclei," B. S. Dzhelepov and  
I. N. Zyryanova

"Uspekhi Fiz Nauk" Vol 48, No 4, pp 465-530

Reviews the exptl data published up to Mar 1952. Discusses the principles governing processing of data. Presents complete tables of nuclear masses for atomic numbers Z up to 20. 455 references appended, which are all Western.

242T96

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DZHELEPOV, B.

235T88

USSR/Physics - Gamma-Spectrum of Br<sup>82</sup> - 21 Jul 52

"The Gamma-Ray Spectrum of Br<sup>82</sup>," B. Dzhelepov, A. Silant'yev, Radium Inst, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol 85, No 3, pp 533-535

Investigates the gamma-ray spectrum of Br<sup>82</sup> with the aid of the Radium Institute's gamma spectrometer ("ritron"), which was described by B. S. Dzhelepov and M. Orbell ("Dok Ak Nauk SSSR" Vol 62, 615, 1948). Gives a table showing the energy and intensity of the gamma rays of Br<sup>82</sup> in comparison with foreign results. Acknowledges assistance of

235T88

N. N. Zhukovskiy, Yu. V. Khol'nov, and K. Gromov.  
Submitted by Acad P. I. Lukirskiy 14 May 52.

(PA 56 no. 671:7890 '53)

235T88

12 HELPOK B  
USSR

3

γ-ray spectrum of Cs<sup>137</sup>. K. Gromov and B. Dzhafarov.  
Dokl. Akad. Nauk S.S.S.R. 85, 259-30 (1955). No. 2  
was studied by means of a γ-spectrometer. The relative  
intensities were detd. with an accuracy of 5%. The lines  
541, 543, and 600 e.kv. were not sep'd. and the relative in-  
tensity was the sum of the 3 intensities. The lines 1150  
and 1318 e.kv. were clearly expressed although their relative  
intensities were low. The exp'd. data were compared with  
those of other investigators. J. Rautar Leach.

DZHELEPOV, B.

235T98

USSR/Physics - Gamma Radiation

11 Sep 52

"Gamma Radiation of  $Sb^{124}$ ," K. Gromov, B. Dzelepev, N. Zhukovskiy, A. Silant'yev, Yu. Khol'nov

"Dok Ak Nauk SSSR" Vol 86, No 2, pp 255-258

By means of the gamma spectrometer that employs the Compton electron, the authors investigate gamma radiation of subject antimony isotope, under conditions similar to those of the investigation of gamma spectra of  $Co^{60}$  and  $Ag^{110}$  in 1951 by the authors. The source of gamma rays was activated metallic antimony in the amt of 0.7 gram. Discuss exptl

235T98

curve of current strength in an electromagnet versus number of coincidences per unit of time. Submitted by Acad P. I. Lukirskiy 2 Jul 52.

235T98

DZHELEPOV, B. S.

USSR/Nuclear Physics - Gamma Radiations

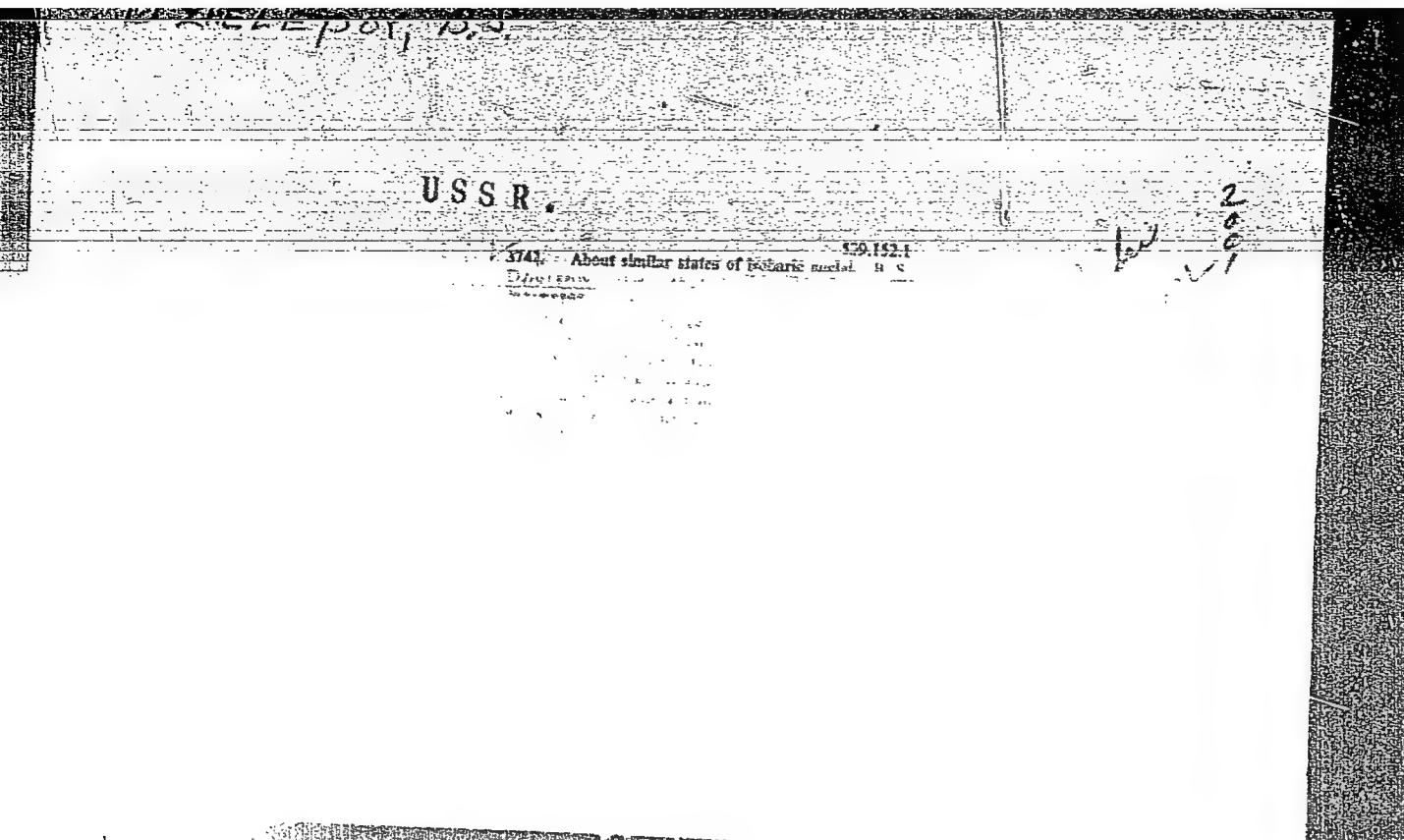
21 Sep 52

"Gamma Radiation of Fe59," B. S. Dzheleпов, N. N. Zhukovskiy, Yu. V. Kholnov, Radium  
Inst in Khlopin, Acad Sci USSR

DAN USSR, Vol 86, No 3, pp 497-499

Gamma radiation of Fe59 was investigated by means of gamma spectrometer using  
recoil electrons. Operating conditions were similar to those used in previous  
works by authors (DAN 77, 233 and 597 (1951); DAN 83, 3 (1952). Results of expts  
showed that a target of cellophane 200 thick may be used for 1-Mev rays, because  
the scattering of electrons distorts little the shape of spectrum lines and does  
not affect their intensity. Presented by Acad P. I. Lukirskiy 2 Jul 52

PA 247T100





DZHELEPOV, E. S.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name

Title of Work

Nominated by

Dzhelepov, E. S.

Research on the beta and gamma spectra of radioactive substances (series of articles)

Radium Institute, Academy of Sciences USSR

SO: W-30604, 7 July 1954

DZHELEPOV, B. S.

USSR/Nuclear Physics - Nuclei, Jul/Aug 53  
Isobaric,  
Review of

"Similar States of Isobaric Nuclei," B. S.  
Dzheleпов, Phys Inst, Leningrad State U in Zhdanov

In Ak Nauk, Ser Fiz, Vol 17, No 4, pp 391-410

Attempts to establish laws of energy at specified  
conditions in coupling of ground and excited  
states of isobaric nuclei. Reviews briefly his  
theory of mirror nuclei (DAN 62, 51 (1951);  
ZhETF 19 (1949); Izv AN, Ser Fiz 15 (1951)).

272T43

Discusses theory of similar-state nuclei and  
concludes that their parity and mechanical moments  
and their isotopic spins are identical.  
One hundred references, mostly American,  
appended. Rec 4 Jul 53.

DZHELEPOV, B. S.

USSR/Nuclear Physics - Conversion  
Spectrum, RaD

Jul/Aug 53

"Conversion Spectrum of RaD," A. A. Bashilov, B. S.  
Dzhelepov and L. S. Chervinskaya, Phys Inst Leningrad  
State U im Zhdanov

Iz Ak Nauk, Ser Fiz, Vol 17, No 4, pp 428-435

Attempt to find experimentally more accurate relative  
intensities of conversional transition lines at 47.7  
keV, to define coeff of conversion and the multipolarity  
of this transition. The number of conversion electrons  
was found to be  $58 \pm 3$  and the transition  $\Delta E = 46.7$  keV

272T45

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was found to have a magnetic dipole. Indebted to N. M.  
Anton'yeva and G. A. Kazina. Rec 20 Jun 53. Thirty,  
mostly foreign, references appended.

DZHELEPOV, B. S.

Jul/Aug 53

USSR/Nuclear Physics - Hf Isotopes

"Emission of Hf175 and Hf 181," A. A. Bashilov, N. M. Anton'yeva, B. S. Dzhelepov and A. I. Dolgintseva, Phys Inst, Leningrad State Univ Im Zhdanov

Iz Ak Nauk, Ser Fiz, Vol 17, No 4, pp 437 -467

Briefly review present knowledge of subject which they consider incomplete. Study emission of radioactive Hf175 and Hf181 irradiated by slow neutrons, and describe the schemes of decay of Hf175 and Hf181. Forty-three, references, mostly foreign. Rec 27 Jun 53.

272T46

DZHELEPOV, B. S.

Chemical Abstracts  
Vol. 48 No. 5  
Mar. 10, 1954  
Nuclear Phenomena

Radiation of zinc. A. A. Bashilov, N. M. Anton'eva, D. L. Broder, and B. S. Dzheleпов (Leningrad State Univ., Leningrad). *Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.* 17, 468-69 (1953). — The upper limit of the  $\beta$ -spectrum is  $325 \pm 2$  e.kv. The energy of  $\gamma$ -rays corresponding to the conversion of  $Zn^{64}$  with a K-electron to  $Cu^{64}$  is  $1122 \pm 5$  e.kv.;  $c/\beta^2 = (5.5 \pm 0.5) \times 10^{-4}$  ( $c$  = the no. of conversion electrons). The ratio  $\beta^2/\gamma$  was established with the help of the photoeffect, a piece of Zn wire, activated by slow neutrons and enclosed in Pb foil being used as a photoelectron source;  $\beta^2/\gamma = (3.0 \pm 0.2) \times 10^{-4}$ .  $\alpha_K \approx 0.9 \alpha_K + 1$ ;  $\alpha_K = (1.5 \pm 0.2) \times 10^{-4}$  which corresponds to a M1 transition type. The  $\beta$ -decay of  $Zn^{64}$  leads to the ground state of  $Cu^{64}$ . The  $\gamma$  ray is emitted when  $Zn^{64}$  is transformed into an excited state 1128 e.kv. of  $Cu^{64}$ .  $f$  for the transition to the ground state =  $3.2 \times 10^7$ ; for the K-electron capture =  $2.5 \times 10^7$ . The ground state of  $Cu^{64}$  is  $5/2$ , the excited state  $-5/2$ .  $Zn^{64}$  can have transitions to the 1122-e.kv. level of  $Cu^{64}$  and to a 2nd higher level, 1490 e.kv. ( $f/\beta$ ). Several facts remain contradictory. S. P.

8-19-54 RMZ

DZHELEPOV, B. S.

USSR/Nuclear Physics - Radioactive Re186

Jul/Aug 53

"Beta Spectrum of Re186," N. M. Anton'yeva, A. A. Bashilov, B. S. Dzhelepoz and L. S. Chervinskaya, Phys Inst, Leningrad State U im Zhdanov

Iz Ak Nauk, Ser Fiz, Vol 17, No 4, pp 507-510

Studied emission of Re186 seven days after irradiation and elimination of Re186. Re186 transmits into Os186 by beta-decay and into W186 by electron capture, releasing in both cases gamma rays. Half life of Re186 was found to be 93 hours. Rec 16 July 53.

272153

DZHELEPOV, B. S.

USSR/Nuclear Physics - Cu, Gamma Emission Jul/Aug 53

"Gamma Emission of  $\text{Cu}^{64}$ ," B. S. Dzhelepov, N. N. Zhukovskiy, V. P. Frikhodtseva and Yu. V. Kholnov, Radio Inst, Acad Sci USSR

Iz Ak Nauk, Ser Fiz, Vol 17, No 4, pp 511-517

Studied in the gamma-spectrum of  $\text{Cu}^{64}$  the line  $h\nu = 1.34$  MeV, also observed by F. Kurie and M. Ter-Pogossian (Phys Rev 74,677 (1948)). Worked with gamma spectrometer, using recoil electrons. Obtained the same results as previously (DAN 86, 497 (1952)). Indebted to A. V. Kudryavtseva, L. N. Zyryanova and V. Chumin. Rec 9 Jul 53.

272T51

DZHELEPOV, B. S.

USSR/Nuclear Physics - Gamma-Spectrometer Jul/Aug 53

"Gamma Spectrometer With Improved Focusing," B. S. Dzhelepov, N. N. Zhukovskiy, A. S. Karamyan and S. A. Shestopalova, All-Union Sci-Res Inst of Metrology; Radium Inst, Acad Sci USSR

Iz Ak Nauk, Ser Fiz, Vol 17, No 4, pp 518-520

Attempt to improve resolution of gamma spectroscopy described previously by Dzhelepov et al. (DAN 62, 613 (1948); 77, 233 (1951)). Because this spectroscopy is based on recoil electrons, author named it "elotron." Indebted to V. Chumin and S. Rusinova. Rec 16 Jul 53.

272T52



USSR/ Nuclear Physics

Card 1/1 Pub. 43 - 2/11

Authors : Bashilov, A. A.; Antonyeva, N. M.; Blinov, M. V.; and Dzhelepov, B. S.

Title : Cs<sup>134</sup> radiation

Periodical : Izv. AN SSSR. ser. fiz. 16/1, 43-64, Jan-Feb 1954

Abstract : The  $\beta$ -spectrum and the spectra of conversion electrons and photoelectrons obtained from gamma-rays of a long-life Cs<sup>134</sup> isomer were investigated. The measurements were carried out on several sources of different origin and having different surface densities. The general form of the Cs<sup>134</sup> beta-spectrum obtained with a source having an average surface density is shown in one of the tables. The spectrum of conversion electrons was observed to consist of 14 lines corresponding to eight gamma-conversions. Data regarding the conversion intensities and interpretations of these data are given. In order to determine the relative intensities of gamma-lines the authors investigated the radiation of Cs<sup>134</sup> by observing the photoelectrons expelled from the target. Twenty-nine references: 8-USSR; 21-USA (1934-1952). Tables; graphs.

Institution : The A. A. Zhdanov State University, Physics Institute, Leningrad

Submitted : November 30, 1953

USSR/ Nuclear Physics

Card 1/1 Pub. 43 - 4/11

Authors : Dzhelepov, B. S.; Novosil'tseva, E. D.; and Tishkin, P. A.

Title : Formation of  $\text{Re}^{188}$  during the bombardment of W with slow neutrons

Periodical : Izv. AN SSSR. ser. fiz. 18/1, 76-78, Jan-Feb 1954

Abstract : Experiments prove that the entrainment of neutrons by Re, which is found among the substances usually attached to W, results in the formation of  $\text{Re}^{188}$  with a spectrum limit of 2 mev and a very small life period of 16.9 hr. One of the stable tungsten isotopes ( $\text{W}^{188}$ ) is considered to be the basic source for the formation of  $\text{Re}^{188}$ . The beta-spectrum of the  $\text{W}^{185}$  plus  $\text{W}^{188}$  plus  $\text{Re}^{188}$  compound derived after repeated extraction of Re from W was measured and the results obtained are given in graphs. The decomposition period for  $\text{Re}^{188}$  was established. Three references: 2-USSR and 1-USA (1946-1951). Graphs.

Institution : The A. A. Zhdanov State University, Physics Institute, Leningrad

Submitted : January 5, 1954

USSR/ Nuclear Physics - Radioactive decomposition

Card 1/1 Pub. 43 - 6/11

Authors : Bashilov, A. A.; Dzhelepov, B. S.; and Chervinskaya, L. S.

Title : Radioactive decomposition of  $\text{La}^{140}$

Periodical : Izv. AN SSSR. ser. fiz. 18/1, 88-92, Jan-Feb 1954

Abstract : The radioactive decomposition of the  $\text{La}^{140}$  isotope was investigated by means of a ketrion-spectrometer having a non-uniform magnetic field and improved focus. Electron registration was carried out on a counter the window of which was covered with a collodion layer with a surface density of  $\sim 0.25 \text{ mg cm}^{-2}$ . The semi-decomposition period for  $\text{La}^{140}$  was established and the experimental results obtained are tabulated. Eighteen references: 16-USA; 1-USSR and 1-German (1935-1951). Tables; graphs.

Institution : The A. A. Zhdanov State University, Physics Institute, Leningrad

Submitted : November 30, 1953

USSR/ Nuclear Physics - Spectral analysis

Card 1/1 Pub. 43 - 7/11

Authors : Antonyeva, N. M.; Bashilov, A. A.; Dzhelepov, B. S.; and Orlov, V. I.

Title : The beta-spectrum of  $P^{32}$

Periodical : Izv. AN SSSR. ser. fiz. 18/1, 93-94, Jan-Feb 1954

Abstract : The form of the beta-spectrum of the radioactive  $P^{32}$  isotope, obtained according to the reaction  $P^{31}(n, \gamma) P^{32}$ , was investigated by means of a magnetic ketrion-spectroscope of high resolving power and by means of a conventional spectrometer with semi-circular focus in a homogeneous magnetic field with resolving power of 1.5%. The results regarding the form of the beta-spectrum are presented by a Curie curve. Data on the semi-decomposition period of the investigated radioactive phosphorous isotope are included. Ten references: 2-USSR and 8-USA (1946-1952). Table; graph.

Institution : The A. A. Zhdanov State University, Physics Institute, Leningrad

Submitted : November 30, 1953

USSR/ Nuclear Physics - Spectroscopy

Card 1/1 Pub. 43 - 8/11

Authors : Dzhelepov, B. S.

Title : The role of repeated electron diffusion in different gamma-spectroscopy methods

Periodical : Izv. AN SSSR. ser. fiz. 18/1, 95-126, Jan-Feb 1954

Abstract : The method employed in calculating the angular electron distribution distortions, due to repeated electron diffusions, is described. The effect of repeated electron diffusion was evaluated on the basis of the F. Williams theory. The ideas of the theory are explained. The role of repeated electron diffusion in various gamma-spectroscopy methods is discussed. A special instance is cited where the electrons diffuse in the very same target in which they originated. A method for the calculation of photoelectron diffusion is briefly described. Seven references: 5-USSR and 2-English (1939-1948). Tables; graphs; drawings.

Institution : Academy of Sciences USSR, Radium Institute

Submitted : December 15, 1953

DZHELEPOV, B.S.

USSR/ Nuclear Physics

Card 1/2      Pub. 43 - 1/5

Authors      : Dzhelepov, B. S.

Title          : Isobaric spins and similar states of atomic nuclei

Periodical    : Izv. AN SSSR, Ser. fiz. 18/5, 523 - 562, Sep - Oct 1954

Abstract      : Scientific data are presented regarding the isobaric spins of three known types of  $\pi$ -mesons ( $\pi^+$ ,  $\pi^0$ ,  $\pi^-$ ). All these particles have almost identical mass and their spin is apparently equal to 0. It was established that all  $\pi$ -mesons (pseudo-scalar particles) have uneven wave functions. No contradicting factors were found to show that all three  $\pi$ -mesons do not represent three different charges states of one and the same particle, all these mesons strongly react with nuclei and this reaction at sufficiently high energies is of no electromagnetic nature. The probability of forming  $\pi$ -mesons by stable gamma-quanta or fast nucleons was established for all three particles.

Institution: .....

Submitted:    September 30, 1954

Periodical: Izv. AN SSSR. Ser. fiz. 18/5, 523 - 562, Sep - Oct 1954

Card 2/2 Pub. 43 - 1/5

Abstract: The specific meson reaction forces of all three  $\pi$ -mesons with any nuclon or nucleus are considered identical. One-hundred references: 11 USSR; 81 USA; 1 Canadian; 2 German; 3 Swiss and 2 English (1932-1954). Tables; graphs; diagrams; drawings.

DZHELEPOV, B.S.

USSR/ Physics .. Instruments

Card 1/ Pub. 43 - 5/5

Authors : Dzhelepov, B. S.; Zhukovskiy, N. N.; and Khol'nov, Yu. V.

Title : Ritron - gamma-spectrometer utilizing output electrons

Periodical : Izv. AN SSSR. Ser. fiz. 18/5, 599 - 624, Sep - Oct 1954

Abstract : The Ritron-magnetic gamma-spectrometer described in this report can be used for the study of gamma-spectra of radioactive substances with energies of from 300 - 4000 kev. With respect to resolving power the instrument was found to be inferior to the gamma-spectrometer with improved focus "Elotron", however, it has a certain advantage over the former, namely, it utilizes only uniform magnetic fields which makes it possible to calculate the form of the spectral line, spectral sensitivity, luminosity and other properties of the instrument. Some results obtained by the application of the Ritron-spectrometer are listed. Twenty-seven references; 15 USSR; 1 Canadian; 1 English; 1 Dutch and 9 USA (1927 - 1954). Tables; diagrams; drawings.

Institution: Academy of Sciences USSR, Radium Institute

Submitted: October 4, 1954



IOFFE, A.F.; LEBEDEV, A.A.; FOK, V.A.; STARIK, I.Ye.; KONSTANTINOV, B.P.;  
DZHELEPOV, B.S.; PERFILOV, N.A.; DOBRETSOV, L.N.; STARODUBTSEV, A.V;  
NEMILOV, Yu.E.; ZHDANOV, A.P.; MURIN, A.N.; AGLINTSEV, K.K.; TSARE-  
VA, T.V.; SHUL'MAN, A.R.; YEREMEYEV, M.A.

P.I.Lukirskii; obituary. Vest.AN SSSR 24 no.12:62 D '54.(MLRA 8:1)  
(Lukirskii, Petr Ivanovich, 1894-1954)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000411830007-7

DZEELEPOV, B.S.

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APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000411830007-7"

Dzhalepov, N. S.

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Radiation and decay scheme of lanthanum-140. L. V.  
Arkhangelskiy, B. S. Dzhalepov, N. N. Zhukovskiy, V. P.  
Prkhodtseva, and Yu. V. Khol'nev. *Dokl. Akad. Nauk  
U.S.S.R., Phys. Ser.* 19, 228-10 (1955) (Engl. translation).—  
See C.A. 50, 1436a. B. M. R.

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Rmk-8

Dzhelepor, B.S.

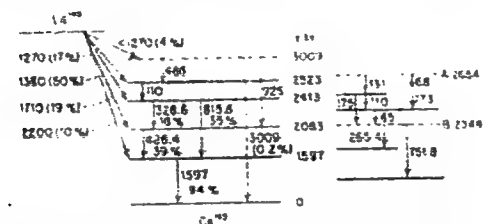
$\gamma$ -Radiation and decay scheme of lanthanum-140

Arkangel'ski, B. S. Dzhelepor, V. V. Zhukovskii, V. P.

Prigoditsaya, and G. V. Khodkov, *Izv. Akad. Nauk*

S.S.S.R., Ser. Fiz. 10, 251-70 (1975)

-- The  $\gamma$ -ray spectrum of  $\text{La}_2\text{O}_3$  irradiated by neutrons was investigated with a nitron  $\gamma$ -spectrometer of C.A. 40. 3143. The energy and the relative intensities are 135.7 (0.1), 482.0 (4), 822 (0.37), 918 (0.12), 1597 (1.00), 2335 (0.058), >2770 (0.002). The half-life of decay is 40 hrs. From all data a decay scheme is derived



The conversion coeffs. and the abs. intensities of  $\gamma$ -transitions are calcd. The properties and the decay of the radioactive isobars  $\text{Xe}^{140}$ ,  $\text{Ce}^{140}$ ,  $\text{Ba}^{140}$ ,  $\text{Pr}^{140}$ , and  $\text{Nd}^{140}$  are discussed. A diagram is drawn on a unitary energetic scale of the levels and transitions in these atoms. The particularly dense packing of  $\text{Ce}^{140}$  is attributed to the presence of a completed 82 neutron shell (magic no.). S. Pokrov

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DZHELEPOV B. S.

1-16/52

✓ 467

GAMMA RADIATION FROM  $Au^{198}$ , B. S. Dzheleпов, N. N.

Zhekovskii, V. P. Prikhodtseva and G. V. Khol'nov.

(Khlopin Radium Inst.), Izvest. Akad. Nauk S.S.S.R. Ser.

Fiz. 19, 271-8 (1955) May-June. (In Russian.)

Investigation concerning  $\gamma$  radiation of  $Au^{198}$  based on two new  $\gamma$  lines of 676 and 1039 Ke and associated  $\beta$ - $\gamma$  and  $\gamma$ - $\gamma$  coincidences. Systematic and detailed description of the  $Au^{198}$  decay scheme is given. 31 references. (R.V.J.)

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Dzhelepor, B.S.

✓ γ-Spectrum of Iridium-192, M. P. Oleynikov, B.S. Dzhelepor, and Vu. V. Kholmov, Izv. Akad. Nauk SSSR, Ser. Fiz. 19, 204-8 (1955). The following measurements with a nitron spectrometer of the energy and intensity of γ-lines are reported: 314 (0.09), 468 (4.58), (A 12) (1.74:788), <0.002, 508 (0.037), 1063 e.k.v. (0.0098).

S. Finkler

B.S.  
MIT

Dzhelepor, B.S.

✓ γ-Radiation of europium-152, 154. B.S. Dzhelepor, N.N. Zhukovskii, and V. G. Nedzvesny. Paper Read: Neukh. Akad. Nauk S.S.S.R. Ser. Fiz. 19, 290-9 (1955). The γ-rays were measured on γ-spectrometers by using Compton electrons and citron. The relative intensities of the lines 341, 427, 593, 717, 779, 871, 958, 1106, 1251, and 1409 e.v. obtained by both methods are tabulated. S. Pakawer

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(2)



DZHELEPOV, B. [S.]

USSR/ Physics

Card 1/1 Pub. 22 - 11/51

Authors : Dzhelepor, B., Member Correspondent of the Acad. of Sc., USSR

Title : About the natural width of the spectral lines of recoiled electrons

Periodical : Dok. AN SSSR 101/5, 825-828, Apr. 11, 1955

Abstract : Experiments, conducted to determine the causes of the discrepancies between the calculated and observed widths of the spectral lines of recoiled electrons, are described. The experiments were conducted with the assumption that the spectrum line of an electron must have its own natural width which does not mainly depend on the comparatively small bond energy, but on the speed of atomic electrons which, e.g., for a K-electron of nitrogen atom is  $V=117 \times 10^6$  cm/sc ( $V= \beta_0 c$ , where  $\beta_0=0.039$  and  $c$  is the speed of light). Disregarding the natural width of the spectral line of a recoiled electron is considered the main cause of the mentioned discrepancies. Eight references: 4 USSR, 2 German and 2 USA (1942-1954). Diagrams; graph.

Institution : Acad. of Sc., USSR, Institute of Radiations

Submitted : December 6, 1954

DZHELEPOV, B.S.; ZYRYANOVA, L.N.; ZEMDEL', M.Ye., tekhnicheskiy redaktor

[Influence of the electric field of the atom on beta decay] Vliyanie  
elektricheskogo polia atoma na beta-raspad. Moskva, Izd-vo Akademii  
nauk SSSR, 1956. 312 p. (MIRA 9:10)  
(Beta rays)

The  $\gamma$ -spectrum of antimony-124. B. S. Drakopov, N. N. Zhukovskii, V. C. Nedovozov, L. P. Likhachev, and V. G. Chumlin (Radiation Inst., Acad. Sci. U.S.S.R., Leningrad). *Nuclear Phys.* 2, 403-19 (1956).—A new detn. of the  $\gamma$ -ray spectrum is reported based on data obtained with the electron, which is a  $\gamma$ -spectrometer with improved focusing in which recoil electrons are detected. The app. and method of calibration with  $\text{Au}^{198}$ ,  $\text{Ca}^{45}$ ,  $\text{Zn}^{65}$ ,  $\text{Co}^{60}$ ,  $\text{Mn}^{56}$ , and  $\text{Th}^{232}$  are described. The  $\gamma$ -rays and relative intensities observed in the decay of 80-day  $\text{Sb}^{124}$  are as follows: energy (c.k.v.) and relative intensity,  $600(2.2 \pm 80)$ ,  $514(26 \pm 4)$ ,  $728(37 \pm 3)$ ,  $987(5.0 \pm 0.8)$ ,  $1018(4.8 \pm 1.8)$ ,  $1330(4.5 \pm 1.8)$ ,  $1370(5.7 \pm 1.2)$ ,  $1442(2.8 \pm 0.6)$ ,  $1525(1.1 \pm 0.7)$ ,  $1700(100)$ , and  $2090(14.9 \pm 1.5)$ . The results are not assigned positively to  $\text{Sh}^{124}$  because adequate radiochem. analysis was not done, but reinvestigation of the source 80 days later indicated that the spectrum in all regions decayed with a half-life of 60 days. Also in figs. 1-5. *See* 5555 R, 5675 R, 5676 R, 5677 R.

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Dzhelepor, B. S.

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AN ELECTRON RECOIL STUDY OF THE GAMMA SPECTRA  
OF  $^{55}\text{Fe}$ ,  $^{106}\text{Ag}$ ,  $^{64}\text{Cu}$ ,  $^{192}\text{Ir}$ ,  $^{138}\text{La}$ , AND  $^{198}\text{Au}$ . B. S.

Dzhelepor and Ju. V. Hol'cov (Academy of Sciences of the  
U.S.S.R., Moscow). Nuovo cimento (10) 3, Suppl. 1, 49-53  
(1958). (In English)

An apparatus "riton" used to investigate  $\gamma$ -ray spect. is  
described. Energy calibrations were made with  $\gamma$  rays of  
accurately known energies and the spectral sensitivity was  
checked with the  $\text{Na}^{22}$  lines. The spectra of the radioactive

substances were investigated and compared with those ob-  
tained in earlier experiments. (F.S.)

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